

CHILDHOOD ANIMAL CRUELTY METHODS AND THEIR LINK TO ADULT INTERPERSONAL VIOLENCE

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DEDICATION

This thesis is dedicated to my brother, Travis Blake Ledford, who always told me I could do anything I wanted, and who always supported me in those endeavours. I love and miss you.

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ABSTRACT

Recent research has begun to establish a relationship between childhood acts of animal cruelty and later violence against humans. However, few studies have focused on the influence of animal cruelty methods on later interpersonal violence. In a replication of a study by Hensley and Tallichet (2009) and based on a sample of 180 inmates at medium- and maximum-security prisons in a Southern state, the present study examines the relationship between several retrospectively-identified animal cruelty methods (drowned, hit, shot, kicked, choked, burned, and had sex with) and interpersonal violence committed against humans. Four out of five inmates reported hitting animals. Over one-third of the sample chose to shoot or kick animals, while one in five had sex with them. Less than one-fifth of the sample drowned or choked animals, and less than one-sixth of the inmates burned animals. Regression analyses revealed that the age at which offenders began animal cruelty and having sex with animals were predictive of adult interpersonal violence.

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CHAPTER 1: INTRODUCTION

Of the varying definitions of animal cruelty, perhaps Ascione (1993) said it best. He described animal cruelty as: “Socially unacceptable behavior that intentionally causes unnecessary pain, suffering, or distress to and/or the death of, an animal” (p. 228). Unlike humans, animals are victims of abuse and exploitation who truly cannot speak on their own behalf. In the past two decades, researchers have begun to unravel the complex nature of animal and human interactions, including animal cruelty. In fact, these studies have revealed a potential link between childhood animal cruelty and adult interpersonal violence.

MacDonald (1961) was one of the first to publicly recognize the relationship between childhood animal cruelty and later interpersonal violence. He reviewed the childhood characteristics of 48 psychotic and 52 non-psychotic inpatients in a mental hospital who had threatened to commit homicidal behavior. He discovered that sadistic patients often shared three common childhood characteristics: enuresis (bed-wetting), fire setting, and animal cruelty. These are now commonly referred to as the MacDonald triad and are considered possible warning signs for those who are prone to violent behavior.

Like MacDonald, Mead (1964) found that childhood animal cruelty was a possible red flag for later violent behavior toward humans. She indicated that childhood cruelty to animals may indicate the formation of a spontaneous, assaultive character disorder. Three separate cases led her to believe that there might be a relationship between the two. The first case involved a boy who had killed cats by banging their heads against an alley wall. The boy later stabbed a schoolmate in the eye. The second case focused on Joe, who killed his neighbors’ animals. Sometimes, instead of killing the animals, he would cut off their ears and eat them while they were still alive. Joe would get drunk and inevitably find himself in a bar fight, typically due to

winning poker. When the loser of the game decided he did not want to pay Joe the money he had lost, Joe would become very violent and attack him with a pocket knife, almost always sending the man to the hospital with multiple stab wounds. The third case involved a boy with low impulse control. The boy had a record of nonstop violence at home and had wrung the neck of his canary.

Mead (1964) argued that children must be taught to distinguish between permissible and impermissible killing. She suggested that animal cruelty, which society considered a forbidden type of killing, was a warning sign which could be diagnosed early and treated before a violent path was undertaken. She also warned that a lack of punishment with respect to an act of animal cruelty by a child was far worse than punishment that was too harsh. If the child went unpunished or uncaught, he or she would continue to progress to more violent behavior against larger animals until eventually, these acts might be committed against humans.

By using a sample of violent and non-violent inmates, Merz-Perez, Heide, and Silverman (2001) provided an example of this in their study of childhood cruelty to animals and their subsequent violence toward humans. One of the nonviolent inmates recalled shooting and killing a neighbor's pig when he was eight years old. Although the child was not being deliberately cruel, and instead just wanted to test the limits of the new gun given to him for his birthday, he was punished quite severely. The same grandfather who had given him the gun refused to believe his recounting and broke his gun and ordered him to assist with chores on the neighbor's farm for one year. Providing support for Mead's line of reasoning, the participant reported that as a result of the way the incident was handled, he felt remorse for killing the animal, and not simply regret that he had been caught.

Overall, Merz-Perez et al. (2001) found that some of the violent offenders reported using the same methods on their animal victims as they later did on their human victims. Wright and Hensley (2003) discovered similar findings during their investigation of the relationship between childhood acts of animal cruelty and serial murder. Case studies revealed that each murderer used the same method on his human victims as he did on the animals that he had killed as a child. For example, Carroll Edward Cole's first act of animal cruelty was choking his puppy to death. When Cole moved his violence from animals to humans as an adult, his preferred method of murder was strangulation.

The effect of childhood animal cruelty methods on later interpersonal violence has been vastly understudied. In fact, only one study has empirically examined the relationship between childhood methods of animal cruelty and later violence toward humans (Hensley & Tallichet, 2009). Using an inmate sample, the present study, which replicates Hensley and Tallichet (2009) study, focuses on several retrospectively-identified methods of childhood animal cruelty and their possible relationship to adult interpersonal violence.

CHAPTER 2: LITERATURE REVIEW

For nearly five decades, researchers have sought to unravel the link between childhood animal cruelty and later interpersonal violence. In 1961, MacDonald introduced a triad of characteristics (enuresis, fire setting, and cruelty toward animals) which he believed to be predictive of a child's propensity to commit later acts of violence toward humans. Three years later, Mead (1964) argued that childhood animal cruelty "could prove a diagnostic sign, and such children, diagnosed early, could be helped instead of being allowed to embark on a long career of episodic violence and murder" (p. 22). The impact of Mead's statement was evident over 20 years later when the American Psychiatric Association took note.

In 1987, animal cruelty was added to the *Diagnostic and Statistical Manual of Mental Disorders-III R (DSM-III R)* as a symptom of childhood conduct disorder and was later kept in the 1994 *DSM-IV* and the 2000 *DSM-IV-TR* (American Psychiatric Association, 1987; American Psychiatric Association, 1994; American Psychiatric Association, 2000). According to the *Diagnostic and Statistical Manual-IV*, a conduct disorder is "a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated" (American Psychiatric Association, 1994, p. 90). To be diagnosed with a conduct disorder, an individual must have demonstrated a minimum of three of the symptoms in the past year. There are 15 recognized symptoms of conduct disorder: cruelty to animals; frequent bullying or threatening; frequently starting fights; use of a weapon that could potentially cause serious harm; cruelty to people; theft with confrontation; forcing sex upon someone; intentionally setting fires to cause significant damage; intentional destruction of property; breaking into the property of others; frequently using deception for personal gain; stealing; deliberately disobeying parental rules; running away; and frequent truancy. The *Diagnostic and*

Statistical Manual-IV also explains that “a substantial proportion [of children diagnosed with conduct disorder] continue to show behaviors in adulthood that meet criteria for antisocial personality disorder” (American Psychiatric Association, 1994, p. 89). Thus, animal cruelty is recognized as an important indicator of a serious psychological problem.

Gleyzer, Felthous, and Holzer (2002) examined whether a history of recurrent animal cruelty was related to a number of different personality disorders: antisocial personality disorder, borderline personality disorder, schizotypal personality disorder, paranoid personality disorder, and mixed personality disorder. The authors focused their study, however, on antisocial personality disorder, a diagnosis often associated with recurrent acts of interpersonal violence. Through retrospective forensic chart reviews, they compared the diagnoses of 48 men who had a history of animal cruelty to 48 men without such a history (who were matched for sex, race, and age). The group of subjects with a history of animal cruelty showed a significantly higher prevalence of polysubstance abuse and dependence. Interestingly, a history of animal cruelty was more frequent in all subjects with personality disorders, regardless of the nature of the personality disorder. One general personality disorder category consisted of all the previously mentioned types of personality disorders. Seventy-five percent of the experimental group fell into this category, whereas only 27.1% of the control group had a personality disorder. However, the diagnosis of antisocial personality disorder on its own was significantly more frequent in the animal cruelty group.

Defining animal cruelty as a symptom of conduct disorder lends further validity to the research examining the link between animal cruelty and later violence against humans. For law enforcement officials, cruelty to animals has long served as a red flag for identifying extremely violent offenders. Correspondingly, the expansive literature about serial killers has often cited

childhood animal cruelty as a precursor to subsequent violence against humans (Ressler, Burgess, Hartman, Douglas, & McCormack, 1998; Wright & Hensley, 2003). In addition, other studies which have used inmate samples have supported the link between animal cruelty and later interpersonal violence (Hensley, Tallichet, & Dutkiewicz, 2009; Merz-Perez & Heide, 2004; Merz-Perez et al., 2001; Tallichet & Hensley, 2004).

Defining Animal Cruelty

Some definitions of animal cruelty can be too vague or exclusive. Others can be too inclusive, such as the following definition posited by Agnew in 1998: "... abuse is broadly defined as any act that contributes to the pain or death of an animal or that otherwise threatens the welfare of an animal. Such abuse may be physical (including sexual) or mental, may involve active maltreatment or passive neglect, may be direct or indirect, intentional or unintentional, socially approved or condemned, and/or necessary or unnecessary" (p. 179). As Agnew (1998) pointed out, most of the harm done to animals is perfectly legal (i.e., hunting and trapping, factory farming, product testing, animal experimentation, and the use of animals for entertainment). Another broad definition is the one used by Thompson and Gullone (2006), who argued that animal cruelty was, "the intentional, malicious, or irresponsible infliction of unnecessary physiological, and/or psychological pain, suffering, distress, deprivation, and/or the death of an animal by a human" (p. 222).

The most frequently accepted definition of animal cruelty is, "Socially unacceptable behavior that intentionally causes unnecessary pain, suffering, or distress to and/or death of, an animal" (Ascione, 1993, p. 228). This definition allows for socially acceptable behavior, such as hunting and trapping, as well as extenuating circumstances which may bring about the death of

an animal, but still be socially acceptable (i.e., euthanasia). Because the status of a particular animal may vary from one culture to another, this definition also takes into account the social context which helps determine what is considered animal abuse.

While there is general consensus over the definition of animal cruelty, there remains little to no consensus as to the relationship between childhood acts of animal cruelty and adult acts of interpersonal violence. Attempts to show the possible relationship between animal cruelty and violence toward humans have produced contradictory results, especially given the numerous methodologies undertaken to examine various aspects of these behaviors. Thus, the association between childhood animal cruelty and later acts of violence toward humans remains controversial.

The Research

Numerous studies have been conducted in the past 20 years to examine the relationship between childhood acts of cruelty toward animals and adult acts of violence against humans. While attempting to discover such a relationship between these behaviors, various methodological techniques and different samples have been examined with less than satisfactory results. The results have been inconsistent and oftentimes contradictory in their attempt to show a link between childhood animal cruelty and adult acts of violence perpetrated against humans. In fact, some studies reveal no association at all or no apparent time order between the behaviors (Arluke, Levin, Luke, & Ascione, 1999; Miller & Knutson, 1997), while others support both the association and the temporal sequencing of the acts (Flynn, 1999; Hensley et al., 2009; Merz-Perez & Heide, 2004; Merz-Perez et al., 2001; Ressler et al., 1998; Tallichet & Hensley, 2004; Verlinden, 2000; Wright & Hensley, 2003).

A review by Felthous and Kellert (1987a) of 15 studies that explored the association between childhood animal cruelty and later violence toward humans revealed that many of the studies comparing violent and non-violent prisoners and psychiatric patients throughout the 1970s and 1980s were unable to establish a clear link or that the data supporting the association were “soft and of dubious reliability” (p. 69). The focus of the review was to examine whether the previous studies had supported a relationship between recurring acts of childhood animal cruelty and serious and persistent acts of later violence against humans. Felthous and Kellert (1987a) excluded studies of aggressive behavior that were not clearly “dangerous or injurious” or reports of single cases involving cruelty toward animals (p. 69).

Ten of the 15 studies did not find a relationship between childhood animal cruelty and subsequent violence against humans. Felthous and Kellert (1987a) contended that many of these studies had significant limitations. First, most were unsuccessful in clearly defining the behaviors being studied. Second, all but one of the studies that did not find a relationship between childhood animal cruelty and later violence examined only single acts of violence toward humans. However, investigators who found an association between childhood animal cruelty and later interpersonal violence had examined recurrent interpersonal violence. Third, over half of the studies that were unable to discover a relationship between animal cruelty and later human violence relied on the chart method of data collection rather than direct interviews with respondents. In contrast, all of the studies that found a relationship relied entirely on direct interviews with subjects. Felthous and Kellert (1987a) argued that investigators should not exclusively rely on clinical records because they may not contain sufficient historical information. Furthermore, they argued that researchers should not focus on methodologies that examine only single acts of animal cruelty or violence toward humans.

In 1997, Miller and Knutson found no association between the types of crimes that had been committed by 314 male and female inmates and a composite measure of their passive and active experiences with childhood animal cruelty. Moreover, their inmate sample data revealed only a modest connection between exposure to animal cruelty and “the aversive childhood histories of the subjects,” as well as their physical or sexually coercive behavior in dating or intimate relationships (p. 59). Within the same study, they performed a follow-up study with 308 undergraduate students to examine whether high exposure to animal cruelty was distinctive only to the incarcerated sample. Again, modest associations were found between animal cruelty and undergraduates’ “punitive and acrimonious” childhood histories (p. 59). They also discovered that 16.4% of the inmates had hurt an animal, compared to only 9.7% of the students; 32.8% of the inmates had killed a stray, compared to only 14.3% of the students; and 12% of the inmates had killed a pet, compared to only 3.2% of the students. The authors did note two limitations of their study. First, they found fairly high base rates of exposure to animal cruelty in both the incarcerated and the undergraduate student samples. Second, the distribution of scores on the combined measure of exposure to animal cruelty was positively skewed and leptokurtic, thereby compromising correlational analysis.

A later study by Arluke et al. (1999) examined the criminal records of 153 animal abusers and 153 control participants. They found that childhood animal abusers were more likely than control participants to be interpersonally violent. However, they were also more likely to commit property, drug, and public disorder offenses later in life. Consequently, the data indicated that animal abuse was associated with a variety of antisocial behaviors inclusive of, but not limited to, human violence. The authors also noted that the abuse of animals was not more likely to precede antisocial behavior than to follow it, casting doubt on the allegation that individuals who

are cruel to animals eventually “graduate” to committing acts of violence against humans. Significant limitations of this study pertained to the time order relationship between childhood cruelty and subsequent acts of violence. First, while Arluke et al. (1999) analyzed official criminal records to determine the relationship between cruelty toward animals and violence toward humans, they were unsuccessful in obtaining criminal records for participants under the age of 17, which is likely to have contributed to the finding that there was no significant time order relationship between childhood cruelty and later interpersonal violence. In addition, they analyzed data only in cases of single acts of animal cruelty rather than those involving recurrent acts.

Other studies have found that those who commit childhood acts of animal cruelty are more likely to engage in interpersonal violence as adults. Ressler et al. (1998) conducted a study exploring the link between animal cruelty and sexual homicide. They examined various behavioral characteristics of 36 sexual murderers, all but seven of whom were serial murderers. Of the 36 men, 28 were tested for certain childhood characteristics. The authors discovered that many of the 28 convicted sexual murderers had engaged in animal cruelty. Thirty-six percent had perpetrated animal cruelty as children, 46% had been cruel to animals as adolescents, and 36% continued to abuse animals as adults.

Wright and Hensley (2003) examined 354 cases of serial murder and discovered that childhood animal cruelty was present in 75 cases. Moreover, the authors developed case studies which examined the childhood histories of five specific serial murderers (Carroll Edward Cole, Jeffery Dahmer, Edmund Kemper, Henry Lee Lucas, and Arthur Shawcross). During childhood, each of the five serial killers had turned to animals to displace their anger. Using the framework of the graduation hypothesis, Wright and Hensley (2003) found that the serial murderers who

engaged in animal cruelty as children graduated to aggressive behavior toward humans as adults. After a series of aggressive acts toward animals, the serial murderers gradually increased the extent of their abuse as a way of gaining further satisfaction from the venting of their repressed frustration and humiliation. This ultimately resulted in violent acts against humans, allowing them to gain some type of satisfaction. Therefore, abusing animals as a child was a precursor for future violence against humans.

In 2000, Verlinden examined the relationship between childhood animal abuse and school shootings. She found that five of the 11 offenders (in nine separate incidents) had histories of childhood animal abuse. Evan Ramsey (Bethel, Alaska) often amused himself by throwing rocks at dogs, while Eric Harris and Dylan Klebold (Littleton, Colorado) frequently discussed their mutilation of animals with friends. Kipland “Kip” Kinkel (Springfield, Oregon) bragged to his peers about beheading cats and blowing up a cow with explosives. Prior to killing his mother and two schoolmates, Luke Woodham (Pearl, Mississippi) tortured and killed his pet dog.

Flynn (1999) distributed questionnaires to 267 undergraduate psychology and sociology students to examine whether committing animal cruelty as a child was associated with the endorsement of interpersonal violence, particularly against women and children. He identified animal abuse as killing a pet, stray, or wild animal, hurting an animal, touching sexually, or having sex with an animal. At least one act of animal abuse was reported by 17.6 % of all the respondents. More than one in six respondents reported hurting or killing an animal during childhood. Moreover, men were four times more likely to have done so than women. Nearly all animal abusers had abused animals more than once. Small animals and dogs were most often hurt; however, small animals were killed most often. The most common type of animal killed

was a stray (13.1%), as compared to a pet (2.6%). Around 35% of the sample reported killing a stray or wild animal in one circumstance, nearly 40% had twice, and 25% had on three or more occasions. For these individuals, 70.6% reported the occurrence(s) during adolescence. For 29.4% of the respondents, killing an animal occurred between the ages of six and 12, while 50% of those who hurt animals also did so between these ages.

Merz-Perez and Heide (2004) and Merz-Perez et al. (2001) interviewed 45 violent and 45 nonviolent offenders incarcerated in a Florida maximum security prison. Participants were coded as violent or nonviolent based on the offense for which each individual was convicted. The information was verified by institutional record and through the interview itself. Fifty-six percent of the violent offenders reported committing acts of childhood animal cruelty as compared to only 20% of the nonviolent offenders. Both violent and nonviolent inmates committed animal cruelty more often toward wild animals followed by farm animals and pets. However, the respective percentages were quite different. Violent offenders committed acts of cruelty on wild animals (29%), pets (26%), and farm animals (14%), while nonviolent offenders were less likely to be cruel to wild animals (13%), pets (7%), and farm animals (2%). Only violent offenders reported abusing stray animals (11%). Violent offenders were also significantly more likely than nonviolent offenders to have been cruel to pet and stray animals. Merz-Perez et al. (2001) also found that many of the nonviolent inmates committed animal cruelty against wild animals in the company of their peers, but all violent offenders reported abusing animals alone. Finally, nonviolent offenders more often expressed remorse over their animal cruelty acts than violent offenders in the study.

In a 2004 study, Tallichet and Hensley explored the relationship between recurrent childhood animal cruelty and subsequent violence toward humans. They surveyed 261 inmates

in a Southern state to determine if male inmates convicted of repeated violent crimes against humans had also committed repeated acts of childhood animal cruelty. Although multiple demographic characteristics (race, education, residence, parents' marital status, and number of siblings) were analyzed, Tallichet and Hensley (2004) found that only repeated acts of childhood animal cruelty and number of siblings predicted later violence toward humans. Additionally, all the reported acts of childhood animal cruelty occurred prior to conviction, emphasizing the time order relationship between animal cruelty and later interpersonal violence. These results were also found in a study by Hensley et al. (2009). Using a sample of 180 inmates from a different Southern state, they found that only repeated acts of childhood animal cruelty were predictive of later recurrent acts of violence toward humans, again showing a relationship between the two behaviors.

Using the first sample of 261 inmates, Tallichet, Hensley, O'Bryan, and Hassel (2005) assessed the impact of demographic characteristics (race, education, and childhood residence) and situational factors (if they hurt or killed the animal alone, if they tried to conceal the cruelty, and if they felt upset after abusing the animal, the frequency of youthful acts of animal cruelty, and the age of onset of animal cruelty) on the type of animal abused. They found that inmates who had abused animals as children were more likely to hurt or kill dogs, cats, and wild animals and tended to target them exclusively. Respondents who had hurt or killed dogs were more likely to have done so alone. Finally, those inmates who had hurt or killed cats were more likely to have started at a younger age.

Similarly, Tallichet and Hensley (2005) investigated how demographic, familial differences, and species type had contributed to the frequency of acts of childhood animal cruelty. In general, the early exposure to animal abuse was a strong predictor of the subsequent

behavior. Rural inmates learned to be cruel toward animals by watching family members exclusively, while urban inmates learned from family members and friends. Moreover, urban inmates chose dogs, cats, and wild animals as their target animals, but rural inmates chose only cats.

Hensley and Tallichet (2005b) also addressed how demographic characteristics and childhood experiences with animal abuse may have affected the recurrence and onset of childhood cruelty as a learned behavior. Findings revealed that inmates who witnessed animal cruelty at a younger age were more likely to demonstrate recurrent animal cruelty. In addition, respondents who observed friends abuse animals were more likely to hurt or kill animals more frequently. Finally, inmates who were younger when they first witnessed animal cruelty also hurt or killed animals at a younger age.

Hensley and Tallichet (2005a) also examined the impact of demographic attributes and situational factors relating specifically to a range of animal cruelty motivations (for fun, out of anger, dislike for the animal, to shock people, fear of the animal, to impress someone, for revenge against someone else, to control the animal, for sex, and imitation). Respondents who reported hurting or killing animals alone were more likely to commit the acts out of anger, but less likely to have committed them to impress others, for sex, or to imitate others. Using the sample of 261 inmates, Hensley and Tallichet (2008) then used these same motives for committing animal cruelty to examine their power to predict later interpersonal violence. They found that abusing an animal for fun was the only motive for predicting later interpersonal violence.

Finally, Tallichet and Hensley (2009) examined the effects of age of onset and frequency of animal cruelty, the covertness of animal cruelty, the commission of animal cruelty within a

group or in isolation, and empathy for the abused animals on later interpersonal violence. They found that inmates who had covered up their childhood animal cruelty were more likely to have been convicted of repeated acts of interpersonal violence, demonstrating that the role of empathy and individuals present during acts of animal cruelty were less important than concealing the acts.

In accordance with this previous research, one can suggest that being cruel to animals could possibly lead to later violence toward humans. According to Merz-Perez and Heide (2004), contributing factors, including the method of animal abuse, the type of animal abused, and the motivation for the abuse, must be considered individually. However, as discussed below, the effect of childhood animal cruelty methods on later interpersonal crimes are relatively understudied.

Methods of Animal Cruelty

Felthous (1980) was the first to investigate methods of animal cruelty in his study of aggression against cats, dogs, and people. He interviewed 346 male psychiatric patients and categorized them according to their levels of aggressiveness, as well as the presence or absence of childhood animal cruelty. Of the 71 patients labeled aggressive, 18 were also classified as recurrent animal abusers. Felthous found the most popular methods of cruelty to be hanging, burning, exploding, and tying the tails of animals together over a clothesline in order to observe the animals instinctively destroy one another. Other methods included: limb amputation, decapitation, choking, brutal beatings, fracturing bones, and scalding with hot water. Felthous and Kellert (1987b) found that the most common methods of childhood animal cruelty were shooting (n = 14), stoning (n = 11), beating (n = 10), and throwing from heights (n = 10). They

also identified other less frequently used methods, including dismembering, exploding, stabbing, burning, electrocuting, breaking bones, and entering into fights.

The inmates in Miller and Knutson's (1997) study reported using the following methods to hurt or kill animals: shooting (n = 77), hitting, beating, or kicking (n = 43), poison (n = 17), accidental (n = 16), throwing against a wall, ground, or other object (n = 9), exploding (n = 7), strangling or smothering (n = 6), stabbing (n = 6), other methods (n = 6), drowning (n = 5), and burning (n = 5). Flynn (1999) found that when killing wild or stray animals, most respondents shot them. When killing pets, the most common methods were shooting or stabbing. When the perpetrators were hurting animals, the most common methods were hitting, beating, kicking, or throwing them against a wall.

In Merz-Perez et al.'s (2001) study, the qualitative data indicated that nonviolent offenders were more likely to be involved in methods of abuse which could be categorized as less severe or distanced acts of cruelty. For example, nonviolent offenders reported having committed childhood animal cruelty by methods of shooting (n = 6), forced fighting (n = 3), and "articulated fear" (n = 1). These acts could be committed without close physical contact with the animal. Violent offenders, however, reported having committed acts of cruelty which required actual physical abuse at the hands of the offender. For example, these offenders committed direct acts of violence by beating, kicking, or stomping (n = 5), engaging in sexual activity with the animal (n = 3), pouring chemical irritants on the animal (n = 2), dismembering (n = 2), stabbing (n = 1), and burning (n = 1). The researchers also discovered that the ways in which the violent offenders abused animals were quite similar to the methods that they later used to perpetrate crimes against their human victims, a finding also reported by Wright and Hensley (2003).

Using an inmate sample, Tallichet, Hensley, and Singer (2005) investigated the methods inmates used while engaging in animal cruelty as children. These methods included: drowned, hit or kicked, shot, choked, burned, and had sex with animals. Of the 112 inmates who had engaged in animal cruelty, more than 64% reported that they had shot animals; approximately 45% had either hit or kicked animals; 21% reported they had choked animals; and approximately 15% had drowned, burned, or had sex with animals. They also examined the influence of demographic attributes (race, education, and residence while growing up) and situational factors (if the abuse was committed alone, if the abuser attempted to conceal the act, if the abuser was upset by the abuse, the perpetrators's age of initial animal cruelty, and the frequency of animal abuse) on these methods. They found that White inmates tended to shoot animals more frequently and were less likely to be upset or cover up their actions than non-Whites. Inmates who had sex with animals were less likely to have acted alone and to conceal their cruelty toward animals than non-bestialics. Hensley and Tallichet (2009) then examined the relationship between these same methods of animal cruelty and the inmates' commission of interpersonal violence. They found that only drowning and having sex with an animal during childhood were predictive of later violence toward humans.

These studies suggest that understanding the methods of animal cruelty require further, systematic study. The present study, a replication of the one by Hensley and Tallichet (2009), addresses the methods childhood animal abusers use and whether these methods are linked to later interpersonal violence. Therefore, we investigate how inmates self-reported animal cruelty and their retrospectively-identified methods (drowned, hit, shot, kicked, choked, burned, and sex) used during their childhood animal cruelty affected the number of interpersonal crimes they committed.

CHAPTER 3: METHODOLOGY

Participants

In March 2007, all inmates housed in one medium- and one maximum-security Southern correctional facility for men were requested to participate in a study of childhood animal cruelty. Of the 1,800 inmates incarcerated in the two prisons, a total of 180 agreed to participate in the study, yielding a response rate of 10%. Although this response rate appears low, most prison studies dealing with sensitive issues attract 25% or fewer respondents (Hensley, Rutland, & Gray-Ray, 2000; Tallichet & Hensley, 2004; Tourangeau, Rips, & Rasinski, 2000).

Table 1 displays the characteristics of the state prison population and the sample. More than half of sample subjects reported being White and approximately 63% indicated that they had committed a violent offense. Their median age was 35. A comparison of the racial composition, type of offense committed, and age distribution of the respondents and the state prison population revealed no significant differences. Although not presented in the table, no significant differences were found in terms of race, type of offense, and age between the sample and the two correctional facilities used in the study. Thus, the sample appears to be representative of the two correctional facilities used in the study, as well as the state prison population in terms of these variables.

Survey Instrument and Procedures

A 26-item questionnaire was constructed, using a combination of previous researchers' questions regarding childhood animal cruelty and its possible link to later

TABLE 1
Population and Sample Characteristics

Characteristic	Prison Population		Sample	
	N	%	n	%
Race:				
White	9,333	51.9	91	50.6
Other	8,667	48.1	89	49.4
Type of Offense:				
Violent Crime	11,283	62.7	115	63.9
Other Crime	6,717	37.3	65	36.1
Median Age	35 years		33.5 years	

violence toward humans (Ascione, Thompson, & Black, 1997; Boat, 1994; Merz-Perez & Heide, 2004; Merz-Perez et al., 2001; Tallichet & Hensley, 2004). After obtaining approval from the state Department of Corrections and the university's Institutional Review Board, the principal investigator drove to the facilities and delivered the questionnaires and informed consent forms. The informed consent stated that the questionnaires were confidential. Correctional counselors distributed self-administered questionnaires to each inmate. Inmates were informed that it would take approximately 20 minutes to complete the questionnaire. Inmates were asked to return their completed questionnaires and signed informed consent forms in a stamped, self-addressed envelope within one month of distribution. The researchers contacted the two prisons after the 30 day period to make sure all completed surveys had been mailed. No incentives were given for completion of the survey. The state Department of Corrections agreed not to open any of the surveys prior to them being mailed back to the researchers. Unfortunately, no efforts were made to increase the sample size.

Measures

The primary goal of this study is to determine whether several retrospectively-identified childhood animal cruelty methods had a relationship with the number of subsequent violent crimes that inmates had committed as adults. Inmates were asked a series of questions regarding their interpersonal violent histories. They included: 1) “Have you ever committed murder or attempted murder?”; 2) “Have you ever committed rape or attempted rape?”; 3) “Have you ever committed aggravated or simple assault?”; and 4) “Have you ever committed robbery?” These questions were coded 0 = no and 1 = yes. More importantly, they were asked how many times they had committed each of these interpersonal crimes. To develop a cumulative score of repeated interpersonal violence, we added the number of times each inmate had committed these crimes. The scores ranged from zero to 16 with an average of 3.46. The cumulative score for each inmate was then used as the dependent variable.

Inmates were also asked to indicate “what they did to hurt or kill animals” as children by circling each of the methods that were listed on the survey. These included: drowned, hit, shot, kicked, choked, burned, and/or had sex with animals. The response for each method was coded so that 0 = had not used that method and 1 = had used that method. These methods served as the main independent variables. Finally, respondents were asked how many times they had hurt or killed animals as children and how old they were when they first hurt or killed animals. These two items were continuous, independent variables.

CHAPTER 4: RESULTS

Of the 103 inmates who had engaged in animal cruelty, over 82% reported that they had hit animals; approximately 36% had kicked animals and 33% had shot animals, respectively (See Table 2). Approximately 22% reported that they had engaged in sex with animals and 17% had either drowned or choked animals. Finally, 15% had burned animals as children. Inmates could select more than one method, resulting in a total cumulative percentage considerably higher than 100%.

TABLE 2
Frequencies and Percentages of Inmates Who Committed Childhood Animal Cruelty and Their Methods While Engaging in These Acts ($n = 103$)

Method	<i>n</i>	%
Drowned	18	17.5
Hit	85	82.5
Shot	34	33.0
Kicked	37	35.9
Choked	18	17.5
Burned	16	15.5
Sexual	23	22.3

Table 3 presents the zero-order correlation matrix between the independent variables. Those respondents who drowned animals were more likely to shot, kick, choke, and burn animals during their childhood. In addition, those who drowned animals were more likely to have engaged in recurrent animal abuse and to have started committing animal cruelty at a younger age. Inmates who reported hitting animals were more likely to choke them during childhood. Respondents who shot animals or kicked animals were

TABLE 3
Zero-Order Correlation Matrix - Independent Variables

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈
X ₁ Drowned								
X ₂ Hit	.10							
X ₃ Shot	.28*	-.06						
X ₄ Kicked	.46*	.03	.16					
X ₅ Choked	.44*	.20*	.27*	.29*				
X ₆ Burned	.53*	.08	.28*	.40*	.37*			
X ₇ Sex	.06	.01	.17	.08	.09	.18		
X ₈ Times Hurt or Killed Animals	.40*	.12	.26*	.24*	.24*	.20*	.35*	
X ₉ Age When Hurt or Killed Animals	-.25*	-.09	-.06	-.02	-.22*	-.12	.12	-.23*

*Denotes statistical significance at the .05 level.

Coding of Independent Variables: (X₁) Drowned (0 = No, 1 = Yes); (X₂) Hit (0 = No, 1 = Yes); (X₃) Shot (0 = No, 1 = Yes); (X₄) Kicked (0 = No, 1 = Yes); (X₅) Choked (0 = No, 1 = Yes); (X₆) Burned (0 = No, 1 = Yes); (X₇) Sex (0 = No, 1 = Yes); (X₈) Number of Times Hurt or Killed Animals (continuous variable) (Range: 1 - 13 times, Average: 4.78, Standard Deviation: 3.40); (X₉) Age When First Hurt or Killed Animals (continuous variable) (Range: 5 - 16 years, Average: 10.99 years, Standard Deviation: 2.8)

more likely to choke, burn, and engage in recurrent animal abuse during childhood. Those who choked animals were more likely to burn animals, engage in recurrent animal abuse, and start committing animal cruelty at a younger age. Inmates who reported burning or having sex with animals were more likely to engage in recurrent animal cruelty. Finally, respondents who engaged in recurrent animal cruelty were more likely to start at a younger age.

In order to examine the effects of the independent variables on the dependent variable, regression analysis was performed. According to the results shown in Table 4, only two independent variables had a significant effect on repeated interpersonal violence. Those who had sex with animals during childhood were more likely to engage in recurrent interpersonal violence as adults. In addition, inmates who reported engaging in animal cruelty at a younger age were more likely to commit repeated acts of violence toward humans during their adult years. The independent variables accounted for 10% of the total variance in the model.

TABLE 4
OLS Regression Solutions Predicting Repeated Interpersonal Violence (n = 103)

	<i>b</i>	<i>S.E.</i>	β
X ₁ Drowned	-.28	1.31	-.03
X ₂ Hit	-.01	.98	.00
X ₃ Shot	.17	.83	.02
X ₄ Kicked	.87	.87	.11
X ₅ Choked	1.58	1.18	.16
X ₆ Burned	-.55	1.17	-.05
X ₇ Sex	2.68	.96	.29*
X ₈ Times Hurt or Killed Animals	.10	.13	.09
X ₉ Age When Hurt or Killed Animals	-.29	.14	-.21*
Adj. R^2		.14	
<i>F</i> value		2.80	
Significance		.01	

*Denotes statistical significance at the .05 level.

Coding of Independent Variables: (X₁) Drowned (0 = No, 1 = Yes); (X₂) Hit (0 = No, 1 = Yes); (X₃) Shot (0 = No, 1 = Yes); (X₄) Kicked (0 = No, 1 = Yes); (X₅) Choked (0 = No, 1 = Yes); (X₆) Burned (0 = No, 1 = Yes); (X₇) Sex (0 = No, 1 = Yes); (X₈) Number of Times Hurt or Killed Animals (continuous variable) (Range: 1 - 13 times, Average: 4.78, Standard Deviation: 3.40); (X₉) Age When First Hurt or Killed Animals (continuous variable) (Range: 5 - 16 years, Average: 10.99 years, Standard Deviation: 2.82).

Coding of Dependent Variable: (Y₁) Number of Times Committed Personal Crimes (continuous variable) (Range: 0 - 16 times, Average: 3 times, Standard Deviation: 4.00).

CHAPTER 5: DISCUSSION

With more recent media attention and academic research, childhood animal cruelty and its possible link to later interpersonal violence has become much more publicized in recent years (Hensley et al., 2009; Merz-Perez & Heide, 2004; Merz-Perez et al., 2001; Tallichet & Hensley, 2004). In fact, recent studies of the link have shown a viable relationship between childhood animal cruelty and adult violence toward humans, supporting a time-order relationship between the two. However, little is known about the methods which are used during the commission of childhood animal cruelty, as well as their influence in predicting later interpersonal violence.

From the current sample of incarcerated men who reported committing childhood acts of animal cruelty, the most popular method was hitting animals, which over 80% reported doing. Over one-third of the sample chose to shoot or kick animals, and one in five had sex with them. Drowning and choking each accounted for less than one-fifth of the sample, and less than one-sixth of the inmates burned animals. As Hensley and Tallichet (2009) found during the only previous study which empirically examined the relationship between childhood methods of animal cruelty and later violence toward humans, “the use of hands-on methods were more closely associated with one another, as were those reflecting greater detachment” (p. 155). The same can be said of the present study.

Sex with animals, arguably the most hands-on method of animal cruelty, was the only method which significantly predicted recurrent interpersonal violence. Having childhood sex with an animal requires using very violent means, which may lead to later aggression toward humans. The release which is gained through overpowering an animal during childhood has been debated heavily as being similar to that which is experienced when overpowering a human during adulthood. This idea is further supported through one of Merz-Perez and Heide’s (2004)

case studies, who appeared to have combined both his sexual and aggressive impulses during the development of his personality. This fusion of impulses is what Merz-Perez and Heide (2004) referred to as sexual polymorphous theory, and which Hensley, Tallichet, and Singer (2006) found support for in their study.

In their study of childhood bestiality, Hensley, Tallichet, and Dutkiewicz (2010) found that of their 180 inmate participants, 23 had engaged in childhood bestiality. The authors found that those who had engaged in bestiality were more likely to engage in adult interpersonal crime than those who had not. Additionally, the bestiality group differed from the non-bestiality group in the frequency of crimes committed. More than 65% of the bestialics had committed four or more personal crimes, as compared to only 39.5% of the nonbestialics. From the findings of this study, it is obvious that the sexual component of animal cruelty must be given more attention, as there is definite support for the link between bestiality as a form of animal cruelty and later interpersonal violence.

Additionally, in the current study, it was found that the earlier the age at which the abuse of the animal began, the more likely the individual was to commit recurrent interpersonal violence. This is consistent with the findings of previous studies (Hensley & Tallichet, 2005b; Hensley & Tallichet, 2008; Hensley & Tallichet, 2009). In their study, Merz-Perez and Heide (2004) explained this finding by suggesting that this may be due to a process whereby youthful animal abusers may become desensitized to an animal's pain and lose empathy for the suffering of other species and, eventually, their own. It has long been held that the younger the age at which a child learns a behavior, and the more it is repeated, the more likely it is to become habitual. This may also influence this finding, especially when taken in conjunction with the findings of studies such as Hensley and Tallichet (2005b), who found that inmates who were

younger when they first observed acts of animal cruelty also hurt or killed animals at a younger age. The implication is that as children, we imitate the behaviors we see, until they become learned and habitual.

The present study, a replication of Hensley and Tallichet (2009), sought to build on the findings of previous studies. Many of the methodological issues found in the research conducted in the 1970s and 1980s have been avoided in this study. In the present study, rather than use individual chart reviews, such as those used several decades ago, we used survey data from a sample of male inmates at both medium- and a maximum-security prisons in a Southern state. This population closely mirrored the larger inmate population of the state. Additionally, violence against animals and humans were measured in terms of the frequency of acts committed, instead of measuring animal cruelty or interpersonal violence as single acts, as was the case in several previous studies. It is also important to note that in this study inmates were asked whether or not they had committed a crime, rather than if they had been convicted of it, which was the case in the Hensley and Tallichet (2009) study.

However, the limitations must also be addressed. First, although other studies using inmate samples which examine sensitive topics have resulted in lower response rates (Felthous, 1980; Hensley & Tallichet, 2009, Hensley et. al, 2009; Merz-Perez & Heide, 2004; Merz-Perez et. al, 2001; Tallichet & Hensley, 2004), the 10% response rate from this sample is low for survey-based methodology. The sample may have also excluded illiterate and unknowledgeable inmates, since it relied upon paper and pencil self-reports and presumed that inmates have knowledge of the kinds of behaviors included in the legalistic terminology used in the broad categories of crime presented by the Uniform Crime Report (UCR). Due to these two factors, our results may not generalize to the larger population of inmates.

Second, the measure of animal cruelty which we used could be regarded as problematic. Although Merz-Perez and Heide (2004) found that using the frequency of violent acts toward animals and humans has been identified as a better measure for examining the patterns of both behaviors and the progression of the former to the latter, measuring animal cruelty as a simple frequency does not reveal the complex nature of animal cruelty. Additionally, it does not provide a context for each respondent's story, which could allow researchers to gain better knowledge about why individuals abuse animals to begin with, why they continue abusing them, and why this violent behavior against animals graduates to humans.

Third, it has been found that using face-to-face interviews with participants yields much richer data than questionnaires (Felthous & Kellert, 1987a). Perhaps in the future, this more in-depth method of data collection can be used in place of surveys or chart reviews so that follow-up questions may be asked and a clearer picture of the events be provided. Additionally, the participants in this study were all incarcerated. Therefore, future studies should include not only the incarcerated, but nonoffender and nonincarcerated samples, as well. For example, future studies could explore the prevalence of animal cruelty in children who are physically or sexually abused (Deviney, Dickert & Lockwood, 1983). This is especially important given the fact that sex with animals proved to be the only significant method of animal cruelty in this study, and Hensley et al. (2010) found that bestiality in children was linked to recurrent interpersonal violence as adults. Since Wright and Hensley's (2003) case studies of serial killers have clearly revealed that there is a strong relationship between the preferred method of cruelty used against animals and the preferred method of cruelty later used against humans, future research should concentrate on the link between the specific type of abuse suffered during childhood and whether

that influences the method of cruelty used against animals and the method of cruelty they later used against humans.

It is now generally held that animal cruelty is much more than a simple act of violence, and indeed may be a precursor to further, more severe violent behaviors. This view is now shared by not only the researchers who study animal cruelty, but by law enforcement, social service professionals, and the general public. However, many questions about the origins and development of animal cruelty still exist. Furthermore, since there is clearly an established pattern in many cases which reveals that the offender graduates from animal victims to human ones, more research must focus on this link, especially in regard to the methods and motives experienced by each individual offender. Perhaps most importantly, if researchers could recognize these behaviors before they begin to occur, this could lead to the early identification of those individuals who are at particular risk for later violence against humans.

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